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Article

Why does part-time employment increase in recessions?

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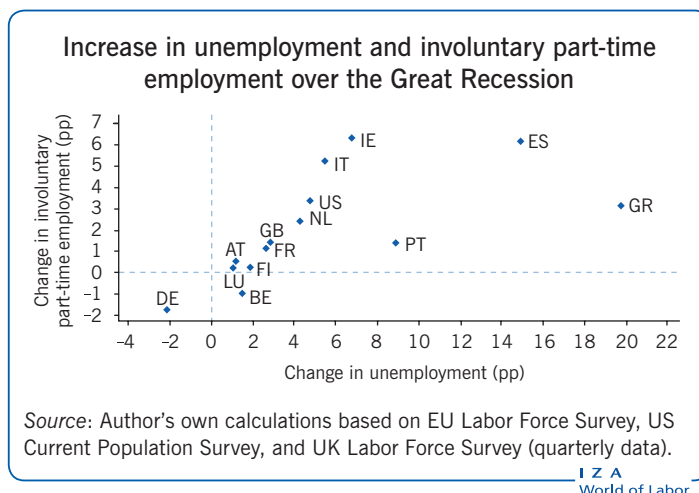
Why does part-time employment increase in recessions?

Jobs can change quickly from full- to part-time status, especially during economic downturns

Keywords: part-time work, involuntary, business cycles

ELEVATOR PITCH

The share of workers employed part-time increases substantially in economic downturns. How should this phenomenon be interpreted? One hypothesis is that part-time jobs are more prevalent in sectors that are less sensitive to the business cycle, so that recessionary changes in the sectoral composition of employment explain the increase in part-time employment. The evidence shows, however, that this hypothesis only accounts for a small part of the story. Instead, the growth of part-time work operates mainly through reductions in working hours in existing jobs.



KEY FINDINGS

Pros

- + During the Great Recession, in the US and the UK the increase in the share of workers employed part-time accounted for the bulk of the drop in hours per worker and almost all its persistence during the recovery period.
- + The lion's share of the cyclical variation in part-time employment is accounted for by changes in the rate at which workers move between part-time and full-time work at their current employer.
- + Because part-time workers are more likely than the unemployed to return quickly to full-time hours, the effects of part-time work on consumption are much lower.

Cons

- The increase in part-time employment observed during recessions is mainly involuntary; either because business conditions are poor at the current job or because workers cannot find a full-time job.
- Individuals who move from full-time to part-time employment experience a substantial reduction in earnings.
- Several years after the end of the Great Recession, the involuntary part-time employment share remains above its pre-crisis level in the UK and the US; the causes behind this persistence are not well understood.

AUTHOR'S MAIN MESSAGE

Part-time work is associated with low-quality jobs. In recessions, the share of workers employed part-time increases substantially and is chiefly involuntary. It is important to assess if this increase induces a reduction in aggregate job quality, by reallocating workers from full-time ("good") to part-time ("bad") jobs. Recent evidence suggests that this is not the case. The bulk of the increase in part-time employment is due to workers who suffer a reduction in working hours at their current employer. Since many part-time workers return quickly to full-time hours, unemployment should remain the focus of policy action during recessions.

MOTIVATION

The introduction of more diverse and flexible work arrangements is an important development in labor markets of developed countries. Part-time work has been part of that evolution and, today, covers a sizable portion of employment relationships in many countries. Like other innovations, more flexible work arrangements bring benefits, but also carry risks, particularly for more disadvantaged workers.

Recessions are periods of long-lasting reductions in aggregate economic activity during which the pace of reallocation is intensified: more firms shut down and are replaced by new ones, some sectors expand while others contract; certain workers lose their jobs, while others join the labor force. The incidence of part-time employment rises dramatically in recessions. To assess whether a policy response is needed, and to design it appropriately, it is important to understand the nature of that increase and its consequences for labor market participants.

DISCUSSION OF PROS AND CONS

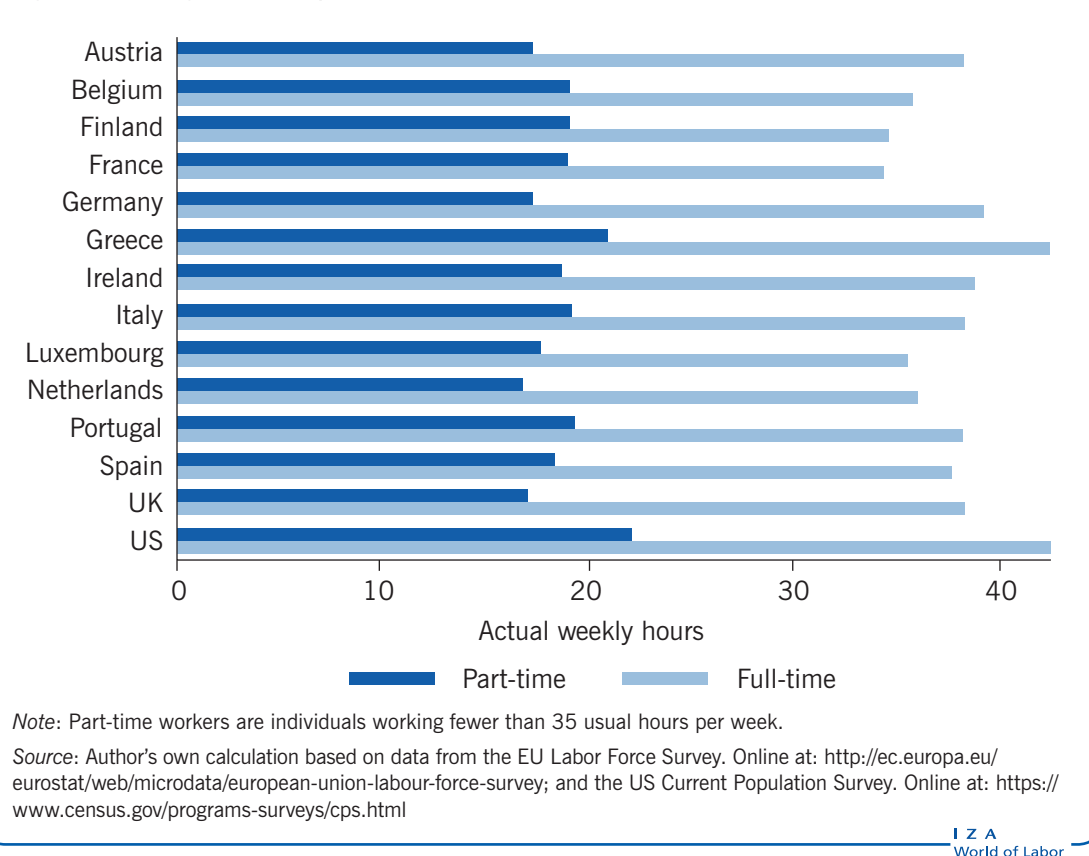
Structural part-time employment

By definition, part-time work differs from full-time work in terms of the number of usual hours worked. A common definition is to consider as part-time workers those individuals who work fewer than 35 usual hours per week. This is the definition used by the US Bureau of Labor Statistics and the one used throughout this article. Based on this definition, part-timers work, on average, about half the number of hours of full-timers (Figure 1). Some statistical agencies, for example, Eurostat, also use individuals' self-reported part-time employment status, or a 30 hours cutoff, to define part-time workers. In general, using different definitions of part-time work affects the overall levels of part-time employment, but provides a similar qualitative picture of the various roles played by part-time employment in the labor market.

In addition to differences in hours worked, the composition of part-time employment is quite different from that of full-time work. This follows from the specific advantages (relative to full-time employment) that part-time work offers to certain workers and employers. For women, the young, and the old, a part-time schedule offers the opportunity to combine work in the labor market with house and caring activities, education, or leisure. Consequently, in most countries these demographics account for the largest fraction of part-time employment. This type of part-time employment is predominantly voluntary, since individual preferences (related to the life cycle) lead workers to choose part-time over full-time work. In the absence of part-time arrangements, these workers would face the choice between working full-time and not working at all. Therefore, many countries actively promote part-time work as way to increase labor force participation.

From the employers' perspective, the main advantage of part-time work is the increased flexibility it affords them in managing irregular demand patterns. In industries where opening hours are either very long or very short, and during which demand is subject to predictable peaks, it is often more cost-effective for firms to employ a part-time workforce. Accordingly, part-time work is used much more intensively in the retail trade, leisure and hospitality, and education and health services, and much less so in construction and manufacturing. Even though it appeals more to certain workers and employers, part-time

Figure 1. Average hours in part-time and full-time work in 2005



work is a pervasive form of employment across the labor market. In many industries, occupations, and other forms of employment (e.g. temporary and self-employment), the share of part-time workers is considerable. Similarly, part-time employment is present in most segments of the employed population defined by differences in age, education, and gender.

In choosing part-time over full-time work, both workers and firms should weigh the relative benefits of part-time employment against its relative costs. In addition to the structural factors mentioned in the previous paragraphs, labor market regulations are likely to affect the relative costs of part-time work in important ways. In most developed countries, part-time workers are entitled to the same working conditions and pay (on a pro-rata basis) as similar full-time workers. However, despite the recent progress made in several countries to enact equal treatment policies for part-time and full-time workers, in practice, these legal provisions are difficult to enforce. Therefore, working part-time is likely to entail worse working conditions and lower access to social security and other benefits compared to full-time work.

A raw comparison of the average hourly wages of part-time and full-time workers delivers a substantial part-time wage penalty in most countries. However, empirical studies find that the part-time wage penalty is largely explained by differences in worker skills (education and experience) and job characteristics (industry and occupation) [1], [2]. Consistent with these findings, in normal times (i.e. non-recessionary), part-time work is overwhelmingly voluntary.

Cyclical part-time employment

A less well-known feature of part-time employment is the fact that its share of total employment varies with the business cycle. In recessions, part-time employment usually goes up and during expansions it goes down again. Recessions are periods of long-lasting reductions in aggregate economic activity, which prompt workers and firms to adjust to the new economic conditions. These adjustments can take many forms and usually differ across types of workers and firms. Some firms face lower demand and are forced to reduce their costs by firing their employees, or lowering their wages and/or hours worked. Some workers who are outside the labor force in normal times may be forced to join it in a recession to compensate for the reduction in household income due to a spouse's dismissal. In a typical recession, the interaction of these various decisions results in a decrease in the number of employed workers, as well as a reduction in the average hours worked among employed workers.

During the Great Recession, employment not only dropped in most countries, but also the share of workers employed full-time. In the same way that workers who lose their job usually remain available and willing to take a job, most workers who suffer a reduction in working hours are available and willing to work more hours. Consequently, cyclical reductions in employment largely translate into increases in unemployment, and increases in part-time employment are chiefly driven by involuntary part-time work. Unlike unemployment, the definition of involuntary part-time employment is not uniform across countries. In most labor force surveys, involuntary part-time employment refers to individuals who work part-time because they cannot find a full-time job. In the US labor force survey (the Current Population Survey), respondents can also indicate "slack business conditions at their current employer" as the main reason for working part-time. The extra detail available in the US data shows that, in a typical recession in that country, the number of part-time workers stating slack business conditions plays a predominant role in the increase in overall involuntary part-time work [3], [4], [5].

Why does part-time employment increase in recessions?

Given that the incidence of part-time employment is much higher among specific groups of workers and firms during recessions, one hypothesis is that cyclical changes in the composition of employment are behind the recessionary increase in part-time employment. For example, if construction and manufacturing employment drops very quickly at the onset of recessions, whereas employment in retail trade and services is more resilient, this will result in an increase in the share of workers employed part-time. The data show, however, that this hypothesis only accounts for a small part of the story [5].

Figure 2 illustrates this point using data from a selection of EU countries, the UK, and the US. For each country, it reports the actual peak-to-trough change in involuntary part-time employment during the Great Recession, alongside counterfactual peak-to-trough changes that keep the composition of employment fixed during the recession. If the increase in the involuntary part-time employment share is explained by changes in the composition of employment, the counterfactual shares should be significantly smaller than the actual one. Figure 2 dispels this possibility. Consider the case of Austria, described in the first row of Figure 2. The first column ("Actual change") indicates that the involuntary part-time employment share increased 0.48 percentage points (pp) in

that country. The next column (“Age”) indicates that this change would have been very similar (at 0.45 pp) had the distribution of age among employed individuals remained fixed to what it was at the recession’s peak. Comparing the value in the first column with the remaining columns, which fix the distribution of employment by sex, education, industry, and all dimensions simultaneously, leads to similar conclusions. Applying the same logic for the other rows delivers the same conclusion. In other words, this evidence suggests that the recessionary increase in involuntary part-time employment is not driven by the cyclical reallocation of labor from less to more part-time intensive segments of the labor market.

Figure 2. Change in involuntary part-time employment in the Great Recession

	Actual change	Counterfactual changes fixing distribution of employment by:				
		Age	Sex	Education	Industry	All
Austria	0.48	0.45	0.41	0.46	0.43	0.38
Belgium	-1.01	-0.93	-0.96	-0.83	-1.03	-0.97
Finland	0.23	0.27	0.27	0.41	0.37	0.46
France	1.13	1.15	1.07	1.46	1.42	1.89
Germany	-1.75	-1.83	-1.87	-1.77	-1.82	-1.89
Greece	3.14	3.48	3.40	3.55	3.91	4.90
Ireland	6.22	6.50	6.40	7.44	7.51	8.62
Italy	5.20	5.78	5.50	5.64	4.53	4.36
Luxembourg	0.15	0.16	0.04	0.39	0.24	0.31
Netherlands	2.21	2.30	2.26	2.29	2.12	2.03
Portugal	1.34	1.58	1.43	1.58	1.52	1.70
Spain	6.19	7.14	6.79	7.17	6.57	7.13
UK	1.55	1.59	1.59	1.69	1.59	1.61
US	2.91	2.93	2.91	2.95	2.86	2.90

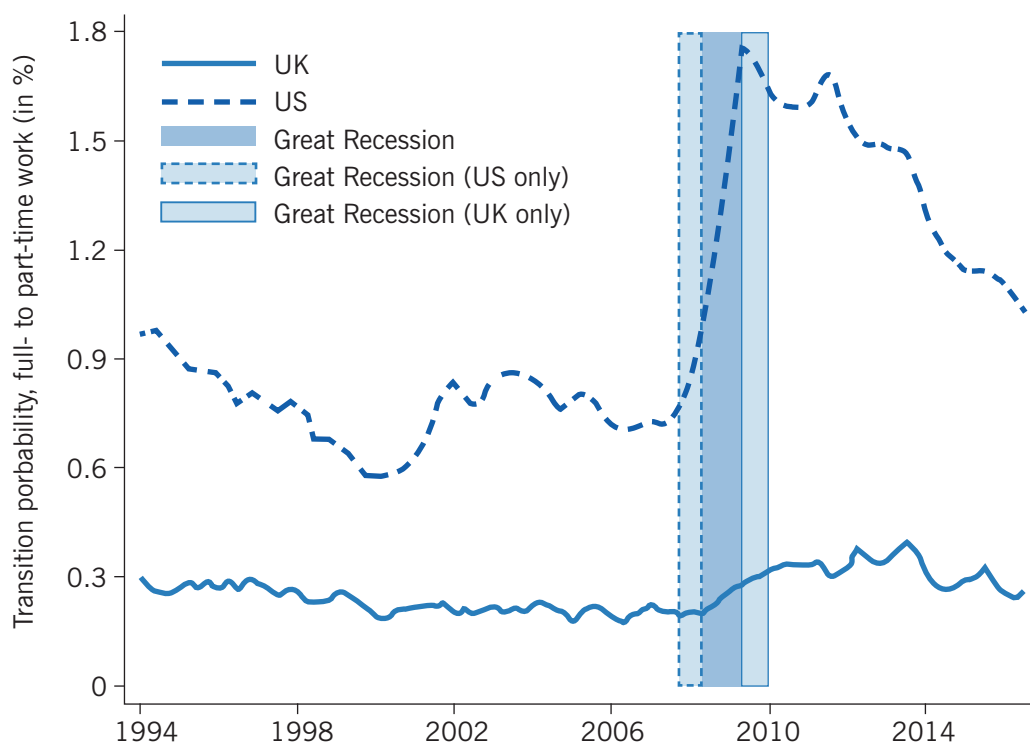
Note: The column “Actual change” reports the peak-to-trough change of the involuntary part-time employment share observed during the Great Recession. The remaining columns report counterfactual peak-to-trough changes over the same period keeping the composition of employment fixed respectively by age, sex, education, industry, and all these characteristics simultaneously (“All”). The Great Recession’s peak-to-trough dates are 2008:Q1–2013:Q1 for Eurozone countries, 2008:Q2–2010:Q1 for the UK, and 2007:M12–2009:M6 for the US. In all countries except the US, involuntary part-time workers are individuals who work fewer than 35 usual hours per week and cannot find a full-time job. In the US, involuntary part-time work also includes individuals who are working part-time due to slack work at their current employer.

Source: Author’s own calculations based on data from the EU Labor Force Survey. Online at: <http://ec.europa.eu/eurostat/web/microdata/european-union-labour-force-survey>; the US Current Population Survey. Online at: <https://www.census.gov/programs-surveys/cps.html>; and the UK Labour Force Survey. Online at: <https://www.ons.gov.uk/surveys/informationforhouseholdsandindividuals/householdandindividualsurveys/labourforcesurvey/lfs>

An alternative hypothesis is that part-time employment increases due to downward adjustments in hours worked among employed individuals. In other words, the drop in economic activity forces firms to reduce labor costs, and many choose to do so by reducing the average number of hours worked per employee. If the costs of hiring and firing employees are high, employers and employees may find it optimal to respond to a temporary fall in demand by reducing working hours. Recent research finds strong support for this hypothesis in the UK and the US labor markets [3], [5].

To assess this hypothesis, recent research studies the dynamics of part-time employment through changes in the rates at which workers move across labor market states (e.g. from unemployment to full-time work, or from part-time work to non-participation). The data show that unemployment and non-participation play only a minor role in the aggregate reallocation of workers from full-time to part-time hours. This reinforces the idea that workers are not moving from “good” full-time jobs in contracting sectors/firms to “bad” part-time jobs in expanding ones with an intervening spell of non-employment. Instead, in the US and the UK, the onset of recession leads to a jump upwards in the probability of full-time workers being employed part-time in the next period (i.e. the next month or quarter), and a drop in the probability that part-time workers become full-time employed in the next period. Together, these two changes account for the lion’s share of the increase in part-time employment in a typical large recession in the US and in the Great Recession in the UK. Figure 3 illustrates this pattern in the past two decades in these countries, focusing on transitions between full-time and involuntary part-time employment. The two lines exhibit a very clear counter-cyclical pattern, increasing sharply as the recession sets in and falling again during the recovery. The much higher levels of the US transition probability are due to the higher levels of US labor turnover, as well as differences in how involuntary part-time work is recorded in the Current Population Survey.

Figure 3. Probability of moving from full-time to involuntary part-time work



Note: In the UK, involuntary part-time workers are individuals who work fewer than 35 usual hours per week and cannot find a full-time job. In the US, involuntary part-time work also includes those who are working part-time due to slack work at their current employer.

Source: Author’s own calculations based on data from the US Current Population Survey. Online at: <https://www.census.gov/programs-surveys/cps.html>; and the UK Labour Force Survey. Online at: <https://www.ons.gov.uk/surveys/informationforhouseholdsandindividuals/householdandindividualsurveys/labourforcesurvey/lfs>

A key fact uncovered by recent research is that a very large fraction of worker transitions between part-time and full-time work occur at the same employer and usually entail sizable changes in working hours (on average around one and a half working days per week in the UK and the US). This is the case both in normal times and during recessions [5]. In other words, for a large fraction of employment relationships, working hours can adjust very quickly and by a sizable magnitude. This picture contrasts with the structural view of part-time employment, according to which worker preferences and employer technology dictate the part-time/full-time status of the job. Instead, it brings to light the notion that part-time employment is an operative margin for workers and firms to temporarily adjust the terms of the employment relationship in response to shocks. Consistent with this view, the elevated levels of high-frequency reallocation between part-time and full-time employment affect not only those segments of the population that are more prone to take on a part-time jobs (like women, the young, and the old), but also prime-aged men (those aged 25 to 54).

How bad is cyclical involuntary part-time work?

Since part-time work usually entails worse employment conditions and lower pay, it seems natural that policymakers should worry about the very large increase in involuntary part-time work observed in recessions. However, recent research based on the US labor market suggests that involuntary part-time employment is a relatively benign labor market outcome when compared to unemployment. The comparison to unemployment (instead of full-time employment) is the relevant one to make. Recessions always entail some form of labor adjustment—indeed, some labor adjustment is beneficial for the short- and long-term performance of the economy—so a comparison with full-time work is of lesser practical importance. In other words, the relevant trade-off faced by employers and employees is the one between layoffs and reductions in hours, not between reductions in hours and no adjustment.

In comparing the effects of worker relocation from full-time work to unemployment versus the relocation to involuntary part-time work, consideration should be given to the two main differences between these alternative labor market states. The first one to consider is the reduction in income relative to full-time employment. In the US, reallocation from full-time to part-time work or unemployment entails similar reductions in income, of about 12% to 14% of annual income [6]. The reason for this is found in the design of existing public income insurance programs. Most US states have unemployment insurance systems in place that provide income to workers who lose their job, as well as to part-time workers who are searching for a full-time job and/or are working fewer hours at their current employer due to slack demand conditions. On top of their unemployment benefits, involuntary part-time workers earn some labor income, but the amount of benefits paid is adjusted to the level of income. Specifically, any labor income earned over a specific level is subtracted in full from the maximal amount of full-time unemployment benefits the worker is entitled to, based on their past contributions. In addition to partial unemployment insurance, uninsured workers who become employed part-time involuntarily may receive income compensation as part of short-time compensation schemes, or through the Earned Income Tax Credit (EITC). However, these programs cover a much smaller fraction of the employed population. Short-time compensation schemes exist in fewer than half of US states and the take-up rate by involuntary part-time

workers in those states is very small [7]. The EITC is designed to offer income support to low-income working families with children and, in practice, only a very small fraction of involuntary part-timers is eligible for the EITC [7].

A second relevant aspect concerns the duration of spells of unemployment and involuntary part-time employment. In this respect, involuntary part-time work differs quite dramatically from unemployment. On average, involuntary part-time spells are shorter than unemployment spells and, more importantly, they are much more likely to lead to a return to full-time work. Amid the Great Recession in the US, the probability of an involuntary part-time worker returning to full-time work was close to twice as high as that faced by an unemployed worker [7]. For forward-looking individuals, a quicker return to full-time employment implies a higher expected future income and, therefore, is likely to lead to a lower reduction in current consumption. Consistent with this view, recent US estimates of changes in food consumption following reallocation from full-time employment to involuntary part-time employment and unemployment show that the drop is much higher for unemployed workers. For a full-time worker who moves to unemployment, their food consumption is likely to change, on average, between –8% and –10%, whereas the change in food consumption for a full-time worker who moves to involuntary part-time employment is basically zero [6]. Since food is an essential consumption item, these differences are probably smaller when looking at the effects on overall consumption. In any case, this should not alter the fact that the overall consumption effects of involuntary part-time work are lower than for unemployment.

What explains the elevated persistence of involuntary part-time employment?

Although UK and US involuntary part-time employment shares have been steadily declining, many years into the recovery they remain clearly above their pre-crisis levels. This contrasts with a full recovery in unemployment observed in both countries, as well as with the experience of past US recessions, when unemployment and involuntary part-time employment recovered at a similar pace. Taken at face value this suggests the prevailing increase in involuntary part-time employment reflects structural, as opposed to cyclical, factors. There is some US evidence suggesting that persistence in involuntary part-time work during the recovery is due to changes in the industry composition of employment [4], as well as evidence that the composition of involuntary part-time employment is shifting toward workers who cannot find a full-time job and away from workers on slack business conditions [3], [8]. On the other hand, the lack of signs of a strong recovery in both countries suggests elevated part-time employment may be a sign of weak economic conditions.

An alternative explanation in the US context is the adoption of the Patient Protection and Affordable Care Act (ACA) in 2010, which mandated employer-sponsored health insurance coverage for firms with 50 or more full-time equivalent employees. Since the mandate only pertains to employers' full-time employees, firms may adjust to the legislation by increasing the share of part-time jobs. Indeed, there is evidence that similar state-level legislation adopted in Hawaii and Massachusetts led to an increase in part-time employment among low-skilled workers [9], [10]. Due to delayed application of fines on employers until 2016, decisive evidence on the effects of the ACA is still lacking. While this explanation may have some traction in the US, it cannot explain developments in the UK.

LIMITATIONS AND GAPS

The evidence summarized in this article concerning labor adjustment on the part-time employment margin pertains to the UK and the US economies. As it stands, a deeper understanding of the role of part-time employment in labor adjustment is limited to two large, rich economies that share similarly flexible labor market institutions, relatively elevated levels of part-time employment, and a low share of total labor adjustment occurring via the intensive margin [11]. Going forward, it seems important to extend this type of descriptive evidence to other countries and time periods, particularly to countries that differ from the UK and the US along at least one of those dimensions. Indeed, it may well be that the patterns reviewed in this article are specific to these two labor markets.

Many developed countries (e.g. Japan and Italy) operate significantly larger short-time work programs [12], and in some other countries (e.g. Germany) institutions like working-time accounts further influence employers' labor adjustment decisions [13]. Not only are these institutions likely to affect the relative importance of reductions in hours worked versus layoffs over the business cycle, but they may also impact the distribution of changes in hours worked among workers. In other words, whether the part-time employment margin is relevant in countries with alternative institutional arrangements remains an open question. The more basic facts presented in this article covering a selection of Eurozone countries suggest that involuntary part-time employment behaved similarly to the UK and the US during the Great Recession, but ultimately this is a question that deserves a more careful and detailed empirical answer.

Concerning the impact of spells of involuntary part-time employment, the evidence is limited to the US labor market, so some caution must be exercised in generalizing them to other countries (even the UK). As with other areas of inquiry in economics, the estimation of these effects is affected by non-random selection of individuals into different labor market states. Other potential sources of endogeneity bias (like endogenous job mobility) are somewhat limited by the fact that the main triggers of worker reallocation are plausibly exogenous shocks.

SUMMARY AND POLICY ADVICE

Part-time employment is an increasingly important form of employment in many advanced economies. Current research supports the conclusion that part-time employment plays a dual role in modern labor markets. During normal times, it offers specific groups of workers and employers an alternative work arrangement to full-time work. This type of part-time employment is largely accounted for by women, and young and old individuals, is more highly concentrated in certain industries and occupations, is overwhelmingly voluntary, and entails, on average, significantly lower pay. Most studies conclude that a substantial fraction of this part-time wage penalty is attributable to differences in worker and job characteristics.

On the other hand, part-time employment offers employers and workers an adjustment channel to respond to changes in economic conditions. This is particularly visible in economic downturns, and especially so during the recent Great Recession, when the involuntary part-time employment rate reached record highs in many countries. The cyclical increase in part-time employment is largely involuntary and widespread across different segments of the labor market. Although workers who move to involuntary part-

time work from full-time employment suffer a reduction in income, most of them remain employed with their current employer and are likely to return to full-time hours quickly.

Overall, based on existing evidence, the flexibility afforded by part-time working arrangements seems broadly positive. Part-time work encourages labor force participation and the effects on workers' income of cyclical involuntary part-time work are low when compared to unemployment. In this sense, policymakers need not interpret the increase in the shares of part-time employment, or their stronger cyclical response during economic downturns, as necessarily entailing reductions in job quality.

Acknowledgments

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Competing interests

The IZA World of Labor project is committed to the *IZA Guiding Principles of Research Integrity*. The author declares to have observed these principles.

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Further reading

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